Listing of Claims

1. (Currently Amended) A system (10) for avoiding poisoning effects during anesthesia, comprising:

determining means (60, 70) for determining the quantitative amount of an anesthetic agent degradation product in an anesthetic gas mixture, and

alarm means for providing an alarm when the determined quantitative amount of the anesthetic agent degradation product in the anesthetic gas mixture exceeds a given threshold,

wherein the anesthetic agent degradation product is trifluoromethane, CHF_3, as an indicator for the presence of CO in the gas mixture.

2. (Original) The system (10) of claim 1, wherein the determining means (60, 70) comprises:

measuring means (60) for measuring a Raman spectrum of the gas mixture, and

a processing unit (70) for determining the quantitative amount of the anesthetic agent degradation product in the gas mixture by comparing the measured Raman spectrum with a reference spectrum of the anesthetic agent degradation product.

3. (Canceled) The system (10) of claim 1, wherein the anesthetic agent degradation product is carbon monoxide CO.

4. (Canceled) The system (10) according to claim 1, wherein the anesthetic agent degradation product is trifluoromethane, CHF_3, as an indicator for the presence of CO in the gas mixture.

5. (Currently Amended) A system (10) for avoiding CO poisoning effects during anesthesia caused by anesthetic agent degradation products in a gas mixture such as a respiration gas, comprising:

means (60) for measuring a Raman spectrum of the gas mixture,

a processing unit (70) for determining the quantitative amount of at least one of the anesthetic agent degradation products in the gas mixture by comparing the measured Raman spectrum with a reference spectrum of the at least one anesthetic agent degradation products, and

means for providing an alarm when the determined quantitative amount of the anesthetic agent degradation product in the gas mixture exceeds a given threshold, wherein the anesthetic agent degradation product is trifluoromethane, CHF_3, as an indicator for the presence of CO in the gas mixture.

6. (Currently Amended) A method for avoiding poisoning effects during anesthesia, comprising the steps of:

(a) determining the quantitative amount of an anesthetic agent degradation product in an anesthetic gas mixture, and

(b) providing an alarm when the determined quantitative amount of the anesthetic agent degradation product in the anesthetic gas mixture exceeds a given threshold wherein the anesthetic agent degradation product is trifluoromethane, CHF_3, as an indicator for the presence of CO in the gas mixture.

7. (Original) The method of claim 6, wherein the step (b) comprises the steps of:

(c) measuring a Raman spectrum of the gas mixture, and

(d) determining the quantitative amount of the anesthetic agent degradation product in the gas mixture by comparing the measured Raman spectrum with a reference spectrum of the anesthetic agent degradation product.

8. (Currently Amended) Use of a Raman spectrometer (60, 70) for determining the quantitative amount of an anesthetic agent degradation product in a gas mixture wherein the anesthetic agent degradation product is trifluoromethane, CHF_3, as an indicator for the presence of CO in the gas mixture.

9. (Canceled) A method for avoiding poisoning effects during anesthesia accordingly to claim 6 wherein the anesthetic agent degradation product comprises at least one of carbon monoxide and trifluoromethane.

10. (Canceled) A system according to claim 5 wherein the anesthetic agent degradation product comprises at least one of carbon monoxide and trifluoromethane